

Application No. 09/826,319

IN THE CLAIMS:

The following Listing of Claims replaces all prior Listings, and versions, of claims in the above-identified application.

Listing of Claims

1. (Currently Amended) A method to reduce airway hyperresponsiveness in a mammal that has, or is at risk of developing, airway hyperresponsiveness, comprising administering to the lungs of said mammal an aerosolized antibody formulation comprising antibodies that selectively bind to a receptor on a T cell selected from the group consisting of: a T cell antigen receptor (TCR) selected from the group consisting of an $\alpha\beta$ TCR and a $\gamma\delta$ TCR, CD3, CD4 and CD8, wherein the binding of the antibodies to the receptor causes the depletion or inactivation of the T cell, wherein administration of the antibody formulation reduces airway hyperresponsiveness in said mammal; and

wherein the administration of the aerosolized antibody formulation affects pulmonary T cell responses in the mammal, while peripheral T cell responses detected in the mammal are neither substantially stimulated nor substantially inhibited are less than about 10% of the peripheral T cell responses detected if the antibody formulation is administered systemically.

2. (Original) The method of Claim 1, wherein said receptor on a T cell is an $\alpha\beta$ T cell antigen receptor (TCR).

3. (Original) The method of Claim 1, wherein said receptor on a T cell is a $\gamma\delta$ T cell antigen receptor (TCR).

4. (Original) The method of Claim 3, wherein said antibody selectively binds to a $\gamma\delta$ T cell antigen receptor (TCR) selected from the group consisting of a murine TCR comprising V γ 1, a human TCR comprising V γ 9, and a human TCR comprising V δ 1.

5. (Original) The method of Claim 1, wherein said formulation comprises at least one antibody that selectively binds to an $\alpha\beta$ T cell antigen receptor and at least one antibody that selectively binds to a $\gamma\delta$ T cell antigen receptor.

6. (Original) The method of Claim 1, wherein said antibody selectively binds to a T cell coreceptor selected from the group consisting of CD4 and CD8.

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7. (Original) The method of Claim 6, wherein said antibody selectively binds to the CD8 β chain.
8. (Original) The method of Claim 1, wherein said antibody selectively binds to CD3.
9. (Original) The method of Claim 1, wherein said antibody is a humanized monoclonal antibody.
10. (Original) The method of Claim 1, wherein said antibody does not stimulate T cell activation.
11. (Original) The method of Claim 1, wherein said antibody is a monovalent antibody.
12. (Original) The method of Claim 1, wherein said antibody is a neutralizing antibody.
13. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about 500 μ g antibody per milliliter of formulation.
14. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about 100 μ g antibody per milliliter of formulation.
15. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about 50 μ g antibody per milliliter of formulation.
16. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of between about 5 μ g antibody and about 10 μ g antibody per milliliter of formulation.
17. (Original) The method of Claim 1, wherein said aerosolized antibody formulation comprises less than 35% by weight of said antibody.

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18. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $400 \mu\text{g} \times \text{kilogram}^{-1}$ body weight of said mammal.

19. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $40 \mu\text{g} \times \text{kilogram}^{-1}$ body weight of said mammal.

20. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $1 \mu\text{g} \times \text{kilogram}^{-1}$ body weight of said mammal.

21. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $0.5 \mu\text{g} \times \text{kilogram}^{-1}$ body weight of said mammal.

22. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $0.1 \mu\text{g} \times \text{kilogram}^{-1}$ body weight of said mammal.

23. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered at a dose of less than about $20 \text{ ng} \times \text{kilogram}^{-1}$ body weight of said mammal.

24. (Original) The method of Claim 1, wherein said aerosolized antibody formulation comprises a pharmaceutically acceptable carrier.

25. (Original) The method of Claim 24, wherein said pharmaceutically acceptable carrier is selected from the group consisting of: a dry, dispersible powder; small capsules; liposomes; and a nebulized spray.

26. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered to said mammal in conjunction with another agent that supports the treatment of AHR selected from the group consisting of: corticosteroids, (oral, inhaled and injected), β -agonists (long or short acting), leukotriene modifiers (inhibitors or receptor

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antagonists), antihistamines, phosphodiesterase inhibitors, sodium cromoglycate, nedocrilal, and theophylline.

27. (Original) The method of Claim 1, wherein said mammal has been sensitized to an allergen and has been exposed to, or is at risk of being exposed to, an amount of said allergen that is sufficient to induce airway hyperresponsiveness (AHR) in said mammal in the absence of said aerosolized antibody formulation.

28. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered within a time period of between 48 hours or less prior to exposure to an AHR provoking stimulus that is sufficient to induce AHR, and within 48 hours or less after the detection of the first symptoms of AHR.

29. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered upon the detection of the first symptoms of acute onset AHR.

30. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered within 1 hour after the detection of the first symptoms of acute onset AHR.

31. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered within 12 hours or less prior to exposure to a AHR provoking stimulus that is sufficient to induce acute onset AHR.

32. (Original) The method of Claim 1, wherein said aerosolized antibody formulation is administered within 2 hours or less prior to exposure to a AHR provoking stimulus that is sufficient to induce acute onset AHR.

33. (Cancelled)

34. (Original) The method of Claim 1, wherein administration of said aerosolized antibody formulation reduces the airway hyperresponsiveness of said mammal such that the FEV₁ value of said mammal is improved by at least about 5%.

35. (Original) The method of Claim 1, wherein said mammal is a human.

36. (New) A method to reduce airway hyperresponsiveness in a mammal that has, or is at risk of developing, airway hyperresponsiveness, comprising administering to the

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lungs of said mammal an aerosolized antibody formulation comprising antibodies that selectively bind to a receptor on a T cell selected from the group consisting of: a T cell antigen receptor (TCR) selected from the group consisting of an $\alpha\beta$ TCR and a $\gamma\delta$ TCR, CD3, CD4 and CD8, wherein the binding of the antibodies to the receptor causes the depletion or inactivation of the T cell, wherein administration of the antibody formulation reduces airway hyperresponsiveness in said mammal; and

wherein any stimulation or inhibition of peripheral T cell responses in the mammal after the aerosolized antibody administration is less than about 10% of stimulation or inhibition of the peripheral T cell responses that would be detected if the antibody formulation was administered systemically.